

REMARKS

Reconsideration of the application in view of the above amendments and the following remarks is requested. Claims 2-13 and 19-26 are in this application. Claims 2 and 9 have been amended. Claims 1 and 14-18 have been cancelled. Claims 19-26 have been added to alternately and additionally claim the present invention.

The Examiner objected to the disclosure due to the reference label "1168" on page 4. The disclosure has been amended to correct this inadvertent error.

The Examiner objected to claims 1-13 because the phrases "first conductivity type" and "second conductivity type" lacked sufficient antecedent basis. Claim 2 has been amended to be in independent form, and recites both "a first conductivity type" and "a second conductivity type."

The Examiner rejected claim 1 under 35 U.S.C. §103(a) as being unpatentable over Ravanelli et al. (U.S. Patent No. 5,959,332). As noted above, claim 1 has been cancelled.

The Examiner also objected to claims 2-13, but indicated that these claims would be allowable if amended to be in independent form including all of the limitations of any intervening claims. Claim 2 has been amended to be in independent form, and is believed to include all of the limitations of claim 1. Claims 3-13 have not been amended to be in independent form as these claims depend either directly or indirectly from claim 2.

With respect to new claim 19, this claim recites, in part:

"a first region of the semiconductor material, the first region having a first dopant concentration, contacting the top surface, and having a first conductivity type;

"a second region of the semiconductor material, the second region contacting the top surface and the first region, and having a second conductivity type; and

"a third region of the semiconductor material, the third region having the first conductivity type, being spaced apart from the second region, and having a plurality of areas, the plurality of areas including a first area and a second area, the first area contacting the top surface and the first region, and having a second dopant concentration greater than the first dopant concentration, the second area contacting the first area, being spaced apart from the first and second regions, and having a third dopant concentration greater than the second dopant concentration of the first area."

With respect to Ravanelli, if body 13 shown in FIG. 1 is read to be the first region, and regions 14/20 are read to be the second region, then there is no region which can be read to be the third region. Region 18 shown in FIG. 1 of Ravanelli can not be read to be the third region of claim 19 because region 18 does not have first and second areas that have different dopant concentrations. As a result, new claim 19 is patentable over Ravanelli. In addition, since claims 20-26 depend either directly or indirectly from claim 19, claims 20-26 are patentable over Ravanelli for the same reasons as claim 19.

Thus, for the foregoing reasons, it is submitted that the application is in a condition for allowance. Therefore, the Examiner's early re-examination and reconsideration are respectively requested.

Respectfully submitted,

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